## REMARKS

Claims 1-8 are pending on the present application. Claim 1 was amended in this response. No new matter has been introduced as a result of the amendment. Favorable reconsideration is respectfully requested.

### Claim Objections

The specification and claims were objected to for informalities. In light of the present amendments, Applicants respectfully submit the objectionable matter has been addressed. Withdrawal of the objections is earnestly requested.

### Claim Rejections - 35 U.S.C. §112, First Paragraph

Claims 2 and 4 were rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. Applicants respectfully traverse.

Regarding claim 2, FIG. 2 of the present application illustrates an exemplary pulse frame of a STM-6410C-192 signal. According to the SDH standard (G.707), in the first line, the pulse frame contains:

> 192 Al-bytes having the byte position (1 to 192);
> 192 A2-bytes having the byte position (193 to 384);
> a JO- byte at the byte position (385); and
> a C-byte with the byte position (386).

In the second line, the exemplary frame contains:

> byte position 1: byte B1;
> byte position 193: byte El; and
> byte positon 385: byte Fl.

In the third line, the exemplary frame contains:

> at byte position 1, 193 and 385: bytes Dl, D2 and D3 respectively.

According to the exemplary embodiment, the 192 A2-bytes of the STM-64/OC-192 pulse frame PR64.1 to PR 64.4 are reduced by 8 bytes and are replaced by information bytes I11, I12 et al. As such, bytes Al and A2 only have 376 bytes together (i.e., byte position 1 up to the byte position 376). Bytes JO, C, B1, El, Fl, D1, D2 and D3 are added so that 384 timeslots are reserved for bits of overhead information. Data of the STM-256/OC-768 signal DSA1 or,

respectively, the STM-64/OC-192 pulse frame are transmitted in the remaining timeslots as well as in the original payload. These 376 Al and A2 bytes and the other reserved 8 bytes (JO, C, B1, El, Fl, D1, D2 and D3) amount to the sum of 384 bytes which are not available for the transmission of data of one of the sub-signals. Accordingly, Applicants submit the rejection regarding claim 2 is overcome. Withdrawal of the rejection is respectfully requested.

Regarding claim 4, an STM-256/OC-768 data signal of a router is transmitted according to the recited claim. The entire signal does not necessarily correspond to the SDH standard - only the byte positions 1 to 1536 of the first line (i.e., the frame codeword), correspond to the SDH standard. Under the recited claim, the data bytes of the router signal connect to byte position 1536. This means that 1536 synchronization bytes (Al, A2 or bytes NU that are unused at the data transmission side) are transmitted, wherein the router data signal bytes connect to these. The recited STM-256/OC-768 data signal, in contrast to the SDH standard, is uniquely transmitted by four modified STM-64/OC-192 pulse frames. Upon approaching the SDH standard (or SONET standard), the recited STM-64 pulse frames are modified such that the STM-256 data signal of a router can be transmitted by four modified STM-64 pulse frames. For this purpose, the 1536 bytes of the STM-256/0C-768 signal (i.e., the unused bytes or synchronization bytes) are removed and the remaining bytes of said signal are not only transmitted in the payload area, but also in the overhead area of the STM64/OC192 pulse frames. As a result, user data are transmitted in the overhead and the prescribed number of Al or, respectively, A2 bytes (frame marking bytes) is reduced in order to transmit user data of the STM256/0C768 signal. According to the standard, an STM256/0C-768 pulse frame has 622,080 bytes (9 lines a 69120 bytes). Since 1536 synchronization bytes are contained, and the rest are user data, 620,544 bytes (622,080 – 1536) are transmitted.

In light of the remarks provided above, Applicants respectfully submit the rejections under 35 U.S.C. §112, first paragraph have been overcome. Withdrawal of these rejections is respectfully requested.

**Claim Rejections – 35 U.S.C. §112, Second Paragraph**

Claims 1-8 were rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as

the invention. Applicants respectfully traverse this rejection. Applicants submit the claim language is clear in reciting that the "corresponding number of bytes" refers to the number of bytes that are removed ("frame alignment bytes no longer transmitted"). If the Examiner has alternate language in mind, he is invited to propose such language for the Applicant's consideration. Withdrawal of the rejection is respectfully requested.

## Claim Rejections – 35 U.S.C. §103

Claim 1 was rejected under 35 U.S.C. §103(a) as being unpatentable over *Koyama* (US Patent 5,452,307) in view of *Brady* (US Patent 6,891,862). Claims 3 and 5-8 were rejected under 35 U.S.C. §103(a) as being unpatentable over *Koyama* (US Patent 5,452,307) in view of *Brady* (US Patent 6,891,862), and further in view of *Sorgi* (US Patent 6,493,847). Applicants respectfully traverse these rejections.

Regarding Koyama, the Office Action conceded that the document does not teach or suggest the features of high-speed signal being STM-256/OC-768, and the low-speed data signal being STM-64/OC-192. Furthermore, Koyama does not disclose that the high-speed data signal is generated with respect to concantenated low-speed data signals by removing unused bytes or frame marking bytes. Koyama does not disclose either that the STM-64/OC-192 pulse frame has a reduced or, respectively, modified number of frame codewords. Also, Koyama does not disclose either that a number of bytes of the data signal is transmitted instead of the non-transmitted frame codewords of the low-speed data signals. In this regard, the Office Action relies on Brady to cure the deficiencies of Koyama.

However, Brady merely discloses a system that expands the SONET/SDH multiplex hierarchy, with respect to high data rates, by defining new virtual containers of higher capacity and by pointers that are allocated to those containers (col. 2, lines 16-27). The pointers in Brady are placed in the payload so that the number of pointers is reduced on the high-speed path (col. 2, lines 49-57). Brady proceeds according to the SONET/SDH standard, namely standard-conform and only defines new larger containers for transmitting data. These new containers represent a duplicate of previous containers (col. 5, lines 4-26). Brady does not contain any information with respect to the removal of overhead bytes and the transmission of s combined

STM256/0C768 signal using overhead bytes. In fact, Brady teaches away from the recited claims as the disclosure relies upon standard-conforming containers for the transmission of data.

Furthermore, Applicants submit that there is no teaching, suggestion or motivation for one of ordinary skill in the art to combine the Koyama and Brady references in the manner suggested in the Office Action. In making a determination that an invention is obvious, the Patent Office has the initial burden of establishing a *prima facie* case of obviousness. *In re Rijckaert*, 9 F.3d 1531, 1532, 28 U.S. P.Q.2d 1955, 1956 (Fed. Cir. 1993). "If the examination at the initial stage does not produce a *prima facie* case of unpatentability, then without more the applicant is entitled to grant of the patent." *In re Oetiker*, 24 U.S.P.Q.2d 1443, 1444 (Fed. Cir. 1992).

The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). The initial burden is on the examiner to provide some suggestion of the desirability of doing what the inventor has done. "To support the conclusion that the claimed invention is directed to obvious subject matter, either the references must expressly or impliedly suggest the claimed invention or the examiner must present a convincing line of reasoning as to why the artisan would have found the claimed invention to have been obvious in light of the teachings of the references." *Ex parte Clapp*, 227 USPQ 972, 973 (Bd. Pat. App. & Inter. 1985). When the motivation to combine the teachings of the references is not immediately apparent, it is the duty of the examiner to explain why the combination of the teachings is proper. *Ex parte Skinner*, 2 USPQ2d 1788 (Bd. Pat. App. & Inter. 1986). (see MPEP 2142).

Further, the Federal Circuit has held that it is "impermissible to use the claimed invention as an instruction manual or 'template' to piece together the teachings of the prior art so that the claimed invention is rendered obvious." *In re Fritch*, 23 U.S.P.Q.2d 1780, 1784 (Fed. Cir. 1992). "One cannot use hindsight reconstruction to pick and choose among isolated disclosures in the prior art to deprecate the claimed invention" *In re Fine*, 837 F.2d 1071 (Fed. Cir. 1988).

Moreover, the Federal Circuit has held that "obvious to try" is not the proper standard under 35 U.S.C. §103. *Ex parte Goldgaber*, 41 U.S.P.Q.2d 1172, 1177 (Fed. Cir. 1996). "An-obvious-to-try situation exists when a general disclosure may pique the scientist curiosity, such

that further investigation might be done as a result of the disclosure, but the disclosure itself does not contain a sufficient teaching of how to obtain the desired result, or that the claim result would be obtained if certain directions were pursued." *In re Eli Lilly and Co.*, 14 U.S.P.Q.2d 1741, 1743 (Fed. Cir. 1990).

The Office Action fails to reconcile how the container configuration of Brady could be incorporated into the teaching of Koyama. At the outset, Applicants respectfully submit that the multiplexing in Koyama would be adversely affected by the removal of unused bytes and inserting subsignal bytes, such as those disclosed in Brady. Furthermore, The disclosure in Koyama was conceded to be lacking in at least six features, when compared to the present claims, however the Office Action does not address the motivation to combine with regard to each of the missing features. The Office Action failed to point where in the Koyama reference, either explicitly or implicitly, was there a teaching, suggestion or motivation for such a combination.

In light of the foregoing comments, the Applicants respectfully submit that the rejections are improper and should be withdrawn. Applicants respectfully submit that claims 1-8 are allowable over the art of record. Accordingly, the Applicants request that a timely Notice of Allowance be issued in this case.

Respectfully submitted,

BELL, BOYD & LLOYD LLC

BY _____

Peter Zura
Reg. No. 48,196
Customer No. 29177
Phone: (312) 807-4208

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